

WRITTEN OPINION
OF THE INTERNATIONAL
SEARCHING AUTHORITY (ATTACHMENT)

International File Reference

PCT/EP2004/051005

IAP20 Rec'd PCT/PTO 30 DEC 2005

Re Item V: Justified finding in accordance with Article 35(2) with regard to novelty, inventive step and industrial applicability; documents and statements to support this finding:

1. Technical Field:

The invention relates to a method for adjustment of a rotation rate sensor.

2. Independent Claims:

Claim 1 (method).

3. Prior Art:

The following documents are cited:

D1: EP-A-0 642 216; ROCKWELL INTERNATIONAL CORP; 8 March, 1995

D2: WO-A-96/04525; LITTON SYSTEMS INC; 15 February, 1996

D3: WO-A-03/014669; THE BOEING COMPANY; 20 February, 2003

4. Novelty and Inventive Step – Article 33(2) and (3) PCT

The document D1, which is regarded as the closest prior art to the subject matter of Claim 1, discloses a circuit for a rotation rate sensor for correction of the in-phase and quadrature components. Phase shifts result in a portion of the rotation rate signal (in-phase component) appearing in the quadrature channel. This fault is rectified or reduced by determination and storage of a compensation angle using a calibration process. The compensation angle is then read from the memory during operation, and is multiplied by the in-phase and quadrature reference.

The subject matter of the independent Claim 1 differs from the closest prior art according to the document D1 in that correction values are added to the in-phase and quadrature components when the sensor is stationary and are varied until the in-phase and quadrature components each reach a minimum, and these correction values are stored in a memory and are used during operation of the rotation rate sensor. The subject matter of Claim 1 is thus novel in comparison to the document D1. All the other documents are less relevant.

This method achieves the technical object of preventing the in-phase and quadrature components from being corrupted by variations in the delay times in the various circuits which are used in the rotation rate sensor. A method such as this is neither known nor obvious from the cited prior art. The requirements of Article 33(3) PCT are thus satisfied.

5. Industrial Applicability – Article 33(4) PCT

The invention as claimed in Claim 1 is industrially applicable to the field of rotation rate sensors.

6. Certain Defects in the International Application

The features in the claims have not been provided with reference symbols in brackets (Rule 6.2 b) PCT.

In order to comply with the requirements of Rule 5.1(a)(ii) PCT, the documents D1 to D3 would have had to be cited in the description; the relevant prior art contained in them should have been briefly outlined.